

Notice of Allowability

Application No.

09/410,626

Examiner

Mehrdad Dastouri

Applicant(s)

OHARA ET AL.

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on July 12, 2004.
2. ☒ The allowed claim(s) is/are 38-53 and 55-62 (Renumbered 1-24).
3. ☒ The drawings filed on 30 October 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Amendment

1. Applicants' amendment filed July 12, 2004, has been entered and made of record.
2. Objection to Claims 39, 40, 44-46 and 52 have been withdrawn in view of Applicants' amendment.

Allowable Subject Matter

3. The following is an examiner's statement of reasons for allowance:

Claim 38 of the instant invention recites a table image processing device comprising a unit finding a potential match of a round corner region by extracting an oblique line which commences from a terminal of a line found by the line extracting unit, and finding a potential match of the round corner region based on the oblique line. The unit finding the potential match of the round corner region decides in a case that the first oblique element and the second oblique element overlap, the part as the potential match of the round corner, even when at least one of the first and the second oblique elements are unclear; and the unit deciding a round corner part decides the part as the round corner in a case that the pixel density at a corner of a cell extracted by the unit extracting the cell changes in a fixed order of low density - high density - low density from outside of the corner area.

Claim 39 of the instant invention recites a table image processing device comprising a unit finding a potential match of a round corner region by extracting an oblique line which commences from a terminal of a line found by the line extracting unit,

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and finding a potential match of the round corner region based on the oblique line. The unit finding the potential match of the round corner region extracts the oblique element by extracting a first oblique element commencing from a terminal of a longitudinal line, and a second oblique element commencing from a terminal of a lateral line, even when at least one of the first and the second oblique elements are unclear; and the unit deciding a round corner pad decides the part as the round corner in the case that the pixel density at a corner of a cell extracted by the unit extracting the cell changes in a fixed order of low density - high density - low density from outside of the corner area.

Claim 40 of the instant invention recites a table image processing device comprising a unit finding a potential match of a round corner region by extracting an oblique line which commences from a terminal of a line found by the line extracting unit, and finding a potential match of the round corner region based on the oblique line. The unit finding the potential match of the round corner region extracts the oblique element by extracting a first oblique element commencing from a terminal of a longitudinal line, and a second oblique element commencing from a terminal of a lateral, even when at least one of the first and the second oblique elements are unclear, and the unit deciding a round corner pad decides the part as the round corner in the case that the pixel density at a corner of a cell extracted by the unit extracting the cell changes in a fixed order of low density - high density - low density from outside of the corner area.

Claims 51 and 52 recite memory medium storing a program for implementing in a computer for table image processing device recited in Claims 38-40, and are therefore allowable.

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Claim 53 of the instant invention recites a table image processing device comprising a unit finding a ruled line by using the longitudinal lines and the lateral lines extracted from the unit extracting lines as the potential match of the ruled line and for deciding whether the potential match of the ruled line is a ruled line or not, even when the ruled line is unclear. The unit finding ruled line comprises a ruled line width finding unit corresponding to the width of the image pattern existing around the identified potential match of the ruled line, uses a first threshold in a case that the width of the image pattern is wide, and uses a second threshold in a case that the width of the image pattern is narrow, and

when the potential match of the ruled line is a longitudinal line, an image pattern of same length as the potential match of the ruled line existing right and left of the potential match of the ruled line within a fixed range is used as the image pattern existing around the potential match of the ruled line,

when the potential match of the ruled line is a lateral line, an image pattern of same length as the potential match of the ruled line existing up and under of the potential match of the ruled line within a fixed range is used as the image pattern existing around the identified potential match of the ruled line.

Claim 57 of the instant invention recites a table image processing device comprising a unit finding a ruled line by using the longitudinal lines and the lateral lines extracted from the unit extracting lines as the potential match of the ruled line and for deciding whether the potential match of the ruled line is a ruled line or not, even when the ruled line is unclear. The unit finding ruled line comprises a ruled line width finding

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unit corresponding to the width of the image pattern existing around the identified potential match of the ruled line, uses a first threshold in a case that the width of the image pattern is wide, and uses a second threshold in a case that the width of the image pattern is narrow.

Claim 59 recites memory medium storing a program for implementing in a computer the table image processing device recited in Claim 57, and is therefore allowable.

Claim 61 recites methodology for implementing the table image processing device recited in Claim 57, and is therefore allowable.

Claims 41, 44, 48 and 49 depend on Claim 38, and are therefore allowable.

Claims 42 and 45 depend on Claim 39, and are therefore allowable.

Claims 43, 46, 47 and 50 depend on Claim 40, and are therefore allowable.

Claims 55 and 56 depend on Claim 53, and are therefore allowable.

Claim 58 depends on Claim 57, and is therefore allowable.

Claims 60 and 62 depend on Claims 59 and 61, respectively, and are therefore allowable.

The features identified, in combination, are neither discussed nor suggested by the prior arts of record.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehrdad Dastouri whose telephone number is (703) 305-2438. The examiner can normally be reached on Monday to Friday from 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehrdad Dastouri
Primary examiner
Art Unit 2623
November 22, 2004

**MEHRDAD DASTOURI
PRIMARY EXAMINER**

Mehrdad Dastouri